



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,842	01/28/2005	Zheng Lu	LCS-103/PCT/US	1886
116 7590 01/30/2008 PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			EXAMINER PENG, KUO LIANG	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 01/30/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,842

Applicant(s)

LU ET AL.

Examiner

Kuo-Liang Peng

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/16/07 Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6,8-17,20-24,38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8-17,20-24,38 and 39 is/are rejected.
- 7) ☒ Claim(s) 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Applicants' amendment filed November 16, 2007 is acknowledged. Claims 3-4, 7, 18-19 and 25-37 are deleted. Claim 1 is amended. Claims 38-39 are added. Now, Claims 1-2, 5-6, 8-17, 20-24 and 38-39 are pending.
2. Claim rejection(s) of Claim 24 under 35 USC 102 or , in alternative, under 103 in paragraph 5 of the previous Office Action (Paper No. 090107 is/are removed because Naganawa (US 5 861 458) does not teach or fairly suggest the claimed functional polysiloxane.
3. The text of those sections of Title 35, U.S. code not included in this action can be found in prior Office Action(s).

Claim Objections

4. Claim 39 is objected to because of the following informalities:

In Claim 39 (last line), should "present" be -- percent --?

Appropriate correction is required.

Claim Rejections - 35 USC § 102 and 103

5. Rejection of Claims 1-2, 8-10, 12, 14 and 20 under 35 U.S.C. 102(b) as being anticipated by Naganawa (US 5 861 458) and rejection of Claims 11, 16-17, 22 under 35 U.S.C. 102(b) are maintained because the rejections are adequately set forth in paragraphs 4-5 of Paper No. 090107. The newly added Claim 38 is rejected over the same ground. Applicant's arguments have been fully considered but they are not persuasive. The focus argument related to the core patentability is discussed below.

For Applicants' argument (Remarks, page 9, 2nd paragraph to page 11, 2nd paragraph), Examiner takes Official notice that typically the hydrolysis/condensation reaction is not complete, i.e., the condensates always contain residual functional groups. As such, upon removing the solvent, the condensed polysiloxanes can further react among themselves (i.e., behaves as both a functional polysiloxane and a crosslinking agent) for the similar reason as depicted in Applicants' specification ([0039]). Note that "for use with composite surfaces" recited in Claim 1 is merely an intended use, and does not carry any weight of patentability. See MPEP 2111.02.

6. Rejection of Claims 1-2, 5-6, 8-17 and 21-24 under 35 USC 103(a) as being unpatentable over Stephens (US 5 601 641) in view of Martin (US 6 294 007) is maintained because the rejection is adequately set forth in paragraph 8 of Paper No. 090107. Applicant's arguments have been fully considered but they are not persuasive. The focus argument related to the core patentability is discussed below.

For Applicants' argument (Remarks, page 13, 2nd paragraph to page 15, 1st and 3rd paragraph), Examiner disagrees. Stephens does teach a silanol-terminated polysiloxane. (Abstract, col. 2, lines 42-44 and Examples)

For Applicants' argument (Remarks, page 15, last paragraph), Examiner disagrees because, although not preferred, Martin does teach the use of a silanol terminated polydimethylsiloxane (col. 2, lines 42-57), which should be crosslinked in the presence of aminofunctional polysiloxane containing methoxy groups that was used in Examples.

7. Claims 38-39 under 35 USC 103(a) as being unpatentable over Stephens (US 5 601 641) in view of Martin (US 6 294 007).

Stephens in view of Martin discloses an aqueous mold release composition, *supra*, which is incorporated herein by reference.

For Claim 38, since the prior art's composition contains a silanol-terminated polysiloxane, *supra*, it should be curable at room-temperature.

For Applicants' argument (Remarks, page 15, 2nd paragraph), Examiner disagrees because of the following reasons: First, the purpose of heating Stephens' composition to 320°F is to **vaporize the water** and coat the mold core. (Stephens, col. 3, lines 1-4) In other words, the water can certainly be removed at room temperature, except in a slower rate.

For Claim 39, the amounts of Stephens' composition is described in col. 2, line 20 to col. 3, line 40 and Examples. Notably, the acetic acid can certainly catalyze the hydrolysis/condensation of alkoxysilanes and/or silanol terminated polydimethylsiloxane. Stephens in view of Martin is silent on the amount of the thickener. However, the amount of the thickener can affect the viscosity of the composition. In other words, the amount is a Result-Effective variable. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize a thickener in whatever amount through routine experimentation in order to afford a composition with a desired viscosity. Especially, Applicants do not show the criticality of the thickener's amount. See MPEP 2144.05 (II).

8. Rejection of Claims 11, 16-17 and 22 under 35 USC 103(a) as being unpatentable over Naganawa and rejection of Claim 13 under 35 USC 103(a) over Naganawa, optionally, in view of Wagner (US 5 464 586) and rejection of Claims 15 and 21 under 35 USC 103(a) over Naganawa are maintained because the rejections are adequately set forth in paragraphs 5-7 of Paper No. 090107.

For Applicants' argument (Remarks, page 16, last paragraph), Applicants are reminded that Wagner is optional. Nonetheless, Applicants are referred to MPEP 2141.01(a) which states that a reference may be relied on as a basis for rejection of an applicant's invention if it is "reasonably pertinent to the particular problem with which the inventor is concerned." A reasonably pertinent reference is further described as one which "even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." Therefore, although Wagner is from different fields than that of the current application, it discloses the use of a slip agent in an **aqueous mold release** composition, which is especially pertinent to the invention at hand.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck, can be reached on (571)

Application/Control Number:
10/522,842
Art Unit: 1796

Page 8

272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

klp
January 24, 2008


Kuo-Liang Peng
Primary Examiner
Art Unit 1796